

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

ALG10220P00050US

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on _____

Signature _____

Typed or printed name _____

Application Number

10/562,387

Filed

May 11, 2006

First Named Inventor

Christiaan Michiel Ten Bruggenkatte

Art Unit

3732

Examiner

Heidi Marie Eide

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

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applicant/inventor.

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assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/98)

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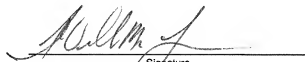
attorney or agent of record.

Registration number 32,273

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attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____



Signature

F. William McLaughlin

Typed or printed name

(312) 876-2120

Telephone number

January 6, 2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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*Total of 2 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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STATEMENT FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Claims 1, 3-6 and 8-17 are pending in the application and are rejected. The rejections of record are not proper and are without basis and are based upon a clear legal or factual deficiency. The deficiencies comprise ignoring express claim limitations and relying on an inaccurate interpretation of the principal reference.

In accordance with the invention, an implant device uses thread parts which serve as retention elements having a shallow slope at the apical (insertion) side and a steep slope on the cervical side. The retention elements function similar to shark teeth. During surgery, the retention elements allow the implant to enter the bony preparation and then hook onto the surrounding bone. This latter feature prevents the implant from being removed by pulling the implant out of the bone tissue.

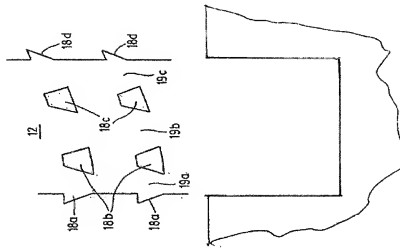
The claims are all rejected based primarily on Munch U.S. Patent No. 4,468,200. Particularly, claims 1, 3, 8-10, 12 and 14 are rejected as anticipated, while claims 4-6, 11, 13 and 15-17 are rejected as obvious over Munch in combination with other references. The application includes only one independent claim and this request will focus specifically on the deficiencies of Munch with respect to independent claim 1.

Independent claim 1 specifies, in pertinent part, an intra-osseous implant for placement in bone of a human or animal body comprising a part having an apical side and a cervical side. The part is provided on its circumferential surface with an interrupted screw thread. Multiple interrupted screw thread parts serve as retention elements allowing the placement of the implant in the longitudinal direction into the bone tissue but preventing the removal of the implant in the opposite longitudinal direction out of the bone. The retention elements are provided with a profile exhibiting a shallow slope toward the apical side and a steep slope on the cervical side.

Munch does not disclose or suggest retention elements allowing placement of an implant in a longitudinal direction into the bone tissue while preventing removal of the implant in the opposite longitudinal direction out of the bone. More particularly, Munch does not disclose that

thread parts are provided with a profile exhibiting a shallow slope toward the apical side and a steep slope on the cervical side.

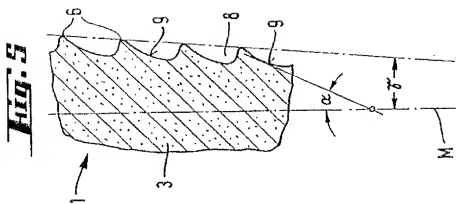
Below is an image showing Fig. 3b of the present application with an added insertion opening in bone tissue to the right. The cervical side is to the left and the apical side to the right.



Applicant Fig. 3(b) with bone

It is readily apparent that the retention elements 18a, b, c and d, which exhibit the claimed shallow slope toward the apical side (the right side) and a steep slope on the cervical side, allow the placement of the implant in a longitudinal direction (from left to right) but prevent the removal of the implant in the opposite longitudinal direction out of the bone (from right to left). Particularly, the retention elements hook into the side walls of the preparation opening to prevent removal in the longitudinal direction (from right to left).

Below is an image showing Fig. 5 of Munch. Again, the cervical side is to the left and the apical side to the right.



Munch Fig. 5

It is readily apparent that the threads of Munch are intended to be threaded into and out of the bone tissue. There is no disclosure of allowing the placement of the implant in a longitudinal direction (from left to right) but preventing the removal of the implant in the opposite longitudinal direction out of the bone (from right to left). To the extent one could argue, as done by the examiner, that the threads are “capable” of allowing placement in the longitudinal direction (from left to right), one would also have to accept that the threads would likewise allow removal in the opposite longitudinal direction (from right to left). This is due to the fact that the slope on the cervical side is similar to the slope on the apical side.

The action focuses on the basic claim limitation to a screw thread having multiple grooves which interrupt the screw thread. The action does not correctly address that the claimed multiple interrupted screw thread parts serve as retention elements. The retention elements allow the placement of the implant in a longitudinal direction but prevent the removal of the implant in the opposite longitudinal direction out of the bone. Munch does not disclose or suggest such retention elements. The action mentions that Munch is also inserted in the longitudinal direction. While there is a longitudinal component to Munch’s threading action, the examiner’s comments ignore the claim limitation to preventing removal in the opposite longitudinal direction. If the

examiner is arguing that Munch teaches that placement by threading is in a longitudinal direction, then Munch does not teach that it “prevents” removal in the opposite longitudinal direction, which would likewise also be by threading (because only threading out is opposite threading in.) To the contrary, Munch allows removal by threading.

It is clearly evident that Munch in Figs. 1 and 2 discloses that most of the intra-osseous part of the implant is covered with a screw thread. A groove 15 functions as a discharge channel. However, the grooves are rather small and are insufficient to establish interrupted screw thread parts which serve as retention elements, as set forth in claim 1.

Claim 1 specifies that the implant can be placed in the bone essentially by a pushing action, or in the wordings of the invention “for the placement of the implant in longitudinal direction”. If such a pushing action were used with Munch, the implant would cause substantial friction with the bone tissue because of the large portion of the screw thread on the surface of the implant. It is therefore more likely that the bone tissue will be damaged during pushing or hammering of the implant that is disclosed in Munch.

In order to prevent damage and unstable placement when implanting the Munch device, the bore or prepared hole in the bone tissue should at least be almost the size of the profile of the screw thread instead of the implant itself. This however results in an unstable implant placement because of the small contact surface of the implant with the bore/prepared hole in the bone tissue. It is therefore inferred that the implant disclosed in Munch is to be screwed in instead of pushed in. Indeed, the disclosure in Munch discusses only a threading action.

Claim 1 of the present application states that “the multiple interrupted screw thread parts serve as retention elements allowing the placement of the implant in longitudinal direction”. The screw thread of Munch does not make it possible to insert the implant in this manner, namely pushing the implant in the longitudinal direction. Independent claim 1 is therefore non-anticipated by Munch.

The action states that Munch discloses “multiple interrupted screw thread parts serving as retention elements capable of allowing the placement of the implant in a longitudinal direction”.

However, there is no discussion as how there is any such capability. As is readily apparent, such a pushing action with Munch would damage bone tissue.

The screw thread parts of the present invention are relatively small compared with the groove/intra-osseous part of the implant surface and therefore have a different effect. This corresponds to the characterization of the screw thread parts as retention elements as discussed above. The relative small surface results in relatively small friction upon pushing the implant into the bone tissue. The screw thread parts are shaped as shark teeth and dig into the surrounding bone tissue. The implant is therefore stable and anchored directly upon placement.

The implant disclosed in Munch gains stability and becomes anchored with the bone tissue when new regenerated tissue is grown over the annular notches, as discussed at column 3, lines 43-44. The screw thread parts of the Munch implant can therefore not be seen as “retention elements allowing the placement of the implant in longitudinal direction into the bone tissue” as set forth in claim 1 herein.

The shape of the Munch implants are like a conical helix, see column 2, lines 8-9. With the cylindrical bore in the bone tissue the shape of the Munch implant will result only in a small portion of the implant to be in close contact with the bone tissue. This results in a less stable and less anchored implant. If the bore in a tissue is the same conical shape of the implant the implant is restricted in depth replacement. There is no freedom to adjust the implant to give it to the correct height/depth without losing stability.

Summarizing, the principal reference, Munch, does not disclose or suggest an implant using retention elements which allow placement of an implant in a longitudinal direction but prevent removal of the implant in the opposite longitudinal direction out of the bone. Particularly, the profile of the threaded elements in Munch allows both insertion and removal by threading, but prevents both insertion and removal by pushing or the like. Withdrawal of the rejection and allowance of the application are requested.